

## CLAIMS

1. (Currently amended) A purified polypeptide shown in SEQ ID NO: 2, or a fragment or variant thereof exhibiting ~~at least about 50% about 95% or greater~~ sequence homology to the naturally occurring polypeptide, wherein said purified polypeptide fragment or variant inhibits platelet function.
2. (Currently amended) A polypeptide according to claim 1 which interferes with the binding of at least one cell surface integrin ~~with to~~ its respective ligands ligand.
3. (Currently amended) A polypeptide according to claim 2 wherein the integrin is glycoprotein GPIIb/IIIa (α<sub>IIb</sub>β<sub>3</sub>) and the ligand is fibrinogen.
4. (Currently amended) A polypeptide according to claim 2 wherein the integrin is glycoprotein GPIa/IIa (α<sub>2</sub>β<sub>1</sub>) and the ligand is collagen.
5. (Canceled)
6. (Original) A polypeptide according to claim 1 which inhibits ~~both~~ at least one of platelet aggregation and platelet adhesion.
7. (Original) A polypeptide according to claim 1 shown in SEQ ID NO: 2.
8. (Currently amended) A pharmaceutical composition for inhibiting at least one of platelet aggregation and platelet adhesion in a patient, comprising an effective amount of the polypeptide of claim 1 mixed with a suitable carrier and one or more optional ingredients selected from the group consisting of stabilizers, preservatives, and dispersing agents.

9. (Currently amended) A method for treating a patient comprising administering a composition comprising an effective amount of the polypeptide according to claim 1 mixed with a suitable carrier and one or more optional ingredients selected from the group consisting of stabilizers, preservatives, and dispersing agents to the patient to inhibit at least one of platelet aggregation and platelet adhesion in said patient, without producing unacceptable toxicity to the patient to inhibit platelet function.

10. (Canceled)

11. (Currently amended) A composition comprising an effective amount of the purified polypeptide of claim 1 mixed with a suitable carrier, wherein said composition is used for inducing the immune response of a mammal susceptible to hookworm infection comprising the polypeptide of claim 1.

12. (Currently Amended) A purified polypeptide isolated or cloned from hookworms, said hookworms including, but not limited to, selected from the group consisting of *Ancylostoma duodenale*, *Ancylostoma ceylanicum*, *Necator americanus*, and *Ancylostoma caninum*, *Bunostomum phlebotomum*, *Agriostomum vryburgi*, *Bunostomum trigonocephalum*, *Gaigeria pachyscelis*, and *Haemonchus contortus*, wherein said purified polypeptide which interferes with the binding of at least one cell surface integrin to its respective ligands, and wherein said purified polypeptide has a molecular weight of about 15 to about 25 kDa inhibits platelet function.

13. (Currently amended) A purified polypeptide according to claim 12 isolated from *Ancylostoma caninum*.

14. (Currently amended) A purified polypeptide according to claim 12 wherein the integrin is glycoprotein GPIIb/IIIa ( $\alpha_{IIb}\beta_3$ ) which inhibits the binding of fibrinogen to cell surface integrin GPIIb/IIIa ( $\alpha_{IIb}\beta_3$ ).

15. (Currently amended) A purified polypeptide according to claim 12 wherein the integrin is glycoprotein GPIa/IIa ( $\alpha_2\beta_1$ ) which inhibits the binding of collagen to cell surface integrin GPIa/IIa ( $\alpha_2\beta_1$ ).

16. (Currently amended) A purified polypeptide according to claim 12 which inhibits platelet aggregation in response to an agonist selected from the group consisting of epinephrine, thrombin, and adenosine diphosphate ADP.

17. (Currently amended) A pharmaceutical composition for inhibiting at least one of platelet aggregation and platelet adhesion in a patient, comprising an effective amount of the polypeptide of claim 12 mixed with a suitable carrier and one or more optional ingredients selected from the group consisting of stabilizers, preservatives, and dispersing agents.

18. (Currently amended) A method for treating a patient comprising administering a composition comprising an effective amount of the polypeptide according to claim 12 mixed with a suitable carrier and one or more optional ingredients selected from the group consisting of stabilizers, preservatives, and dispersing agents to the patient to inhibit at least one of platelet aggregation and platelet adhesion in said patient, without producing unacceptable toxicity to the patient to inhibit platelet function.

19. (Currently amended) A composition comprising an effective amount of the purified polypeptide of claim 12 mixed with a suitable carrier, wherein said

composition is used for inducing the immune response of a mammal susceptible to hookworm infection ~~comprising the polypeptide of claim 12.~~

20. (Canceled)

21. (New) A purified polypeptide according to claim 3 wherein the ligand is fibrinogen.

22. (New) A purified polypeptide according to claim 4 wherein the ligand is collagen.

23. (New) A purified polypeptide according to claim 14 wherein the ligand is fibrinogen.

24. (New) A purified polypeptide according to claim 15 wherein the ligand is collagen.

25. (New) A purified polypeptide comprising residue 1 to 40 of SEQ ID NO: 2, or a fragment or variant thereof having about 95% or greater sequence homology to the naturally occurring polypeptide, isolated or cloned from hookworms selected from the group consisting of *Ancylostoma duodenale*, *Ancylostoma ceylanicum*, *Necator americanus*, and *Ancylostoma caninum*.

26. (New) A purified polypeptide according to claim 25 which interferes with the binding of at least one cell surface integrin with its respective ligands.

27. (New) A purified polypeptide according to claim 25 which inhibits at least one of platelet aggregation and platelet adhesion.

28. (New) A purified polypeptide comprising residues 1 to 40 of SEQ ID NO: 2, or a fragment or variant thereof having about 95% or greater sequence homology to the naturally occurring polypeptide.
29. (New) A polypeptide according to claim 28 which interferes with the binding of at least one cell surface integrin with its respective ligands.
30. (New) A polypeptide according to claim 28 which inhibits at least one of platelet aggregation and platelet adhesion.